

AMENDMENTS TO THE SPECIFICATION:

Page 1, replace the paragraph, beginning on line 17, bridging pages 1 and 2, with the following amended paragraph:

--Fig. 1 shows an example of a conventional access network system. In the access network system, a personal computer (PC) 1 is connected to an ADSL Transceiver Unit-Remote (ATU-R) 2, which is connected to a Digital Subscriber Line Access Multiplexer (DSLAM) 3 through ADSL/VDSL line 1101, wherein ADSL stands for Asymmetric Digital Subscriber Line and VDSL for Very high-speed DSL. The DSLAM 3 is connected to an ATM switch (SW) 4 through ATM OC-3c transmission service 2101. The ATM SW 4 is connected to PPP termination device 5 through ATM OC-12c transmission service 3101. In this example, the PPP termination device 5 is the dedicated device for terminating PPP 501 to transfer IP packets to a backbone network 6 such as Internet. Therefore, the PPP termination device 5 is substantially a gate to the ISP.--

Page 3, replace the paragraph, beginning on line 15, bridging pages 3 and 4, with the following amended paragraph:

--A PPP termination device includes: a first interface to a Digital Subscriber Line Access Multiplexer (DSLAM); a second interface to a backbone network; a Point-to-Point Protocol (PPP) link controller for establishing and disconnecting a PPP link; a header processor for converting between a network-layer packet and a PPP data packet including the network-layer packet [[and]]; and a switch for switching a connection among the first interface, the

second interface, the PPP link controller, and the header processor, depending on which one of a PPP data packet and a link control packet is inputted, wherein the link control packet is used for link establishment and disconnection.--